

II. AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Currently Amended) An integrator circuit comprising: an operational amplifier having: a transistor stage having an input terminal and an output terminal; a feedback capacitor connected between the input terminal and the output terminal of the transistor stage; a resistor connected between an input voltage to the integrator circuit and to the input terminal of the transistor stage; characterised by further comprising an a first additional circuit branch comprising: a second capacitor and a second resistor connected in series one with the other and connected between the output terminal of the transistor stage and a voltage comprising the inverted input voltage to the integrator circuit.
2. (Currently Amended) An integrator circuit according to claim 1 ~~wherein~~ further comprising a second additional circuit branch ~~is provided.~~
3. (Original) An integrator circuit according to claim 2 wherein the first additional circuit branch is connected between the non-inverted output of the transistor stage and the inverted input of the integrator and the second additional circuit branch is connected between the inverted output terminal of the transistor stage and the non-inverted input of the integrator.
4. (Currently Amended) A first filter stage ~~An integrator circuit according to claim 1 when~~ comprising the first filter stage in a sigma delta analog to digital conversion circuit comprising an integrator circuit comprising:

an operational amplifier having:

a transistor stage having an input terminal and an output terminal;

a feedback capacitor connected between the input terminal and the output terminal of the transistor stage;

a resistor connected between an input voltage to the integrator circuit and the input terminal of the transistor stage; further comprising a first additional circuit branch comprising:

a second capacitor and a second resistor connected in series one with the other and connected between the output terminal of the transistor stage and a voltage comprising the inverted input voltage to the integrator circuit.

5. (Previously Presented) A sigma delta analog to digital conversion circuit comprising an integrator circuit according to claim 1.

6. (Currently Amended) A balanced amplifier comprising an integrator circuit according to claim 1 comprising:

an operational amplifier having:

a transistor stage having an input terminal and an output terminal;

a feedback capacitor connected between the input terminal and the output terminal of the transistor stage;

a resistor connected between an input voltage to the integrator circuit and the input terminal of the transistor stage; further comprising a first additional circuit branch comprising:

a second capacitor and a second resistor connected in series one with the other and connected between the output terminal of the transistor stage and a voltage comprising the inverted input voltage to the integrator circuit.